Dioxin Survey - Proposed Sampling Ingredients and Geographic Regions

Feed Ingredient	Number of Samples	Suggested States	Alternate State(s)	Comments
Animal Byproducts				
beef fat	3	1 - (Texas, Oklahoma) 1 - (Nebraska, Kansas, South Dakota, North Dakota) 1 - (California, Oregon, Washington)	1 - (Ohio, Indiana, Illinois, Iowa, Missouri) 1 - (Colorado, Montana, Idaho, Wyoming, Utah, Nevada, Arizona, New Mexico)	- locations selected based on regional variation, and production frequency. - another form of variation is to collect a sample from a different size operation (e.g., collect one of the Plains samples from a small-scale facility) - should determine that the rendered product includes only beef fat, if possible, with no added ingredients (e.g., recycled restaurant grease or fat from other animals)
pork fat	3	2 - (Iowa, Ohio, Indiana, Illinois, Missouri) 1 - (North Carolina)	1 - (Minnesota, Michigan, Wisconsin)	- locations selected based on regional variation, and production frequency. - another form of variation is to collect a sample from a different size operation (e.g., collect one of the Corn Belt samples from a small-scale facility) - should determine that the rendered product includes only porcine fat, if possible, with no added ingredients (e.g., recycled restaurant grease or fat from other animals)
poultry by-product meal	3	1 - (Georgia, South Carolina, Florida, Alabama) 1 - (Arkansas, Mississippi, Louisiana) 1 - (Maryland, Delaware, Virginia)	1 - additional sample from either the Southeast region or the Delta, whichever is available	- locations selected based on regional variation, and production frequency. - another form of variation is to collect a sample from a different size operation (e.g., collect one of the samples from a small-scale facility), if possible.
fat from mixed species/other sources*	3	1 - (Ohio, Indiana, Illinois, Iowa, Missouri) 1 - (Texas, Oklahoma, Nebraska, Kansas, South Dakota, North Dakota) 1 - (Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York)	1 - (Minnesota, Michigan, Wisconsin) 1 - (California, Washington, Oregon)	Fat samples are to be collected from independent renderers (including small-scale facilities), and as a result may include fat from mixed species as well as other sources such as recycled restaurant grease. The samples should be collected from the same dealers as the mixed meat and bone meal samples, if possible.
meat & bone meal from mixed animal species*	3	1 - (Ohio, Indiana, Illinois, Iowa, Missouri) 1 - (Texas, Oklahoma, Nebraska, Kansas, South Dakota, North Dakota) 1 - (Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York)	1 - (Minnesota, Michigan, Wisconsin) 1 - (California, Washington, Oregon)	*Meat and bone samples are to be collected from independent renderers (including small-scale facilities), and as a result may include meat and bone meal from mixed species. The samples should be collected from the same dealers as the mixed fat samples, if possible.
fish meal (catfish and anchovy)*	3	2 - (Mississippi, Louisiana) - catfish 1 - Pacific (Chile, Peru) - anchovy*	1 - (Georgia, South Carolina, Florida, Alabama) - catfish	* based on preliminary research, current use of catfish as a feed source for aquaculture, poultry, swine, etc. appears to be somewhat limited (use in pet food is more common). As a result, suggest substituting 1 sample of anchovy fish meal imported from Peru or Chile. (collect sample from a U.S. supplier that imports the product).
fish meal (salmonids)	3	3 - (California, Washington, Alaska, and Oregon) (try to collect at least one sample of Alaskan origin)	If sample from Alaska is not available, try to collect an additional sample from CA,OR or WA.	- potential species include pollock, salmon, tuna, herring, sardines.

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fish meal (menhaden)	3	2 - (Louisiana, Mississippi) 1 - (Virginia)	If sample from Virginia is not available try to collect a sample of North Carolina origin	- menhaden accounts for about 90% of fish meal production in the U.S. - U.S. fishing grounds for menhaden range along the gulf and Atlantic coast. Louisiana is the largest processing state, followed by Virginia.
Plant Byproducts				
deodorizer distillates from corn processors	3	1 - (Ohio, Indiana, Illinois, Iowa, Missouri) 1 - (Nebraska, Kansas, South Dakota, North Dakota) 1 - (Minnesota, Michigan, Wisconsin)	1 - (Virginia, West Virginia, North Carolina, Kentucky, Tennessee)	Regions selected had the highest corn production levels based on USDA data.
deodorizer distillates from soybean processors	3	1 - (Ohio, Indiana, Illinois, Iowa, Missouri) 1 - (Virginia, West Virginia, North Carolina, Kentucky, Tennessee) 1 - (Arkansas, Mississippi, Louisiana)	1 - (Nebraska, Kansas, South Dakota, North Dakota) 1 - (Georgia, South Carolina, Florida, Alabama)	Regions selected had the highest soybean production levels based on USDA data. (Soybean meal is the most common protein supplement used in animal feed)
deodorizer distillates from peanut processors	3	1 - (Georgia, South Carolina, Florida, Alabama) 1 - (Texas, Oklahoma) 1 - (Virginia, West Virginia, North Carolina, Kentucky, Tennessee)	1 - (Mississippi, Louisiana, Arkansas)	Regions selected had the highest peanut production levels based on USDA data.
deodorizer distillates from cottonseed processors	3	1 - (Texas, Mississippi, Louisiana, Arkansas) 1 - (California, Washington, Oregon) 1 - (Georgia, South Carolina, Florida, Alabama)	1 - (Virginia, West Virginia, North Carolina, Kentucky, Tennessee)	Regions selected had the highest production levels based on USDA data. (Cottonseed meal ranks second behind soybean meal in use as a protein supplement)
deodorizer distillates from canola processors	3	1 - (Nebraska, Kansas, South Dakota, North Dakota) 1 - (Minnesota, Michigan, Wisconsin) 1 - (Colorado, Montana, Idaho, Wyoming, New Mexico, Arizona, Utah, Nevada)	1 - additional sample from either the Northern Plains or Lake States, whichever is available	Regions selected had the highest canola production levels based on USDA data.
cane starch molasses	3	1 - (Florida) 1 - (Hawaii) -note: sample from Hawaii may be available from San Francisco, CA 1 - (Texas, Louisiana, Mississippi)	If a sample from Hawaii is not available, collect an additional sample from Florida	Regions selected had the highest cane starch production levels based on USDA data.
beet molasses	3	1 - (Minnesota, Michigan, Wisconsin) 1 - (California, Washington, Oregon) 1 - (Colorado, Montana, Idaho, Wyoming, New Mexico, Arizona, Utah, Nevada)	1 - (Nebraska, Kansas, South Dakota, North Dakota)	Regions selected had the highest beet production levels based on USDA data.
corn molasses	3	1 - (Ohio, Indiana, Illinois, Iowa, Missouri) 1 - (Nebraska, Kansas, South Dakota, North Dakota) 1 - (Minnesota, Michigan, Wisconsin)	1 - (Virginia, West Virginia, North Carolina, Kentucky, Tennessee)	Regions selected had the highest corn production levels based on USDA data. Corn molasses was selected over sorghum molasses because corn is more commonly used in animal feed.
Total number of ingredient samples	**48**			